

REMARKS

Reconsideration of this application is respectfully requested. Petition is hereby made for a one-month extension of time to respond to the outstanding Office Action of July 3, 2008.

Claims 1-19 are pending in the application, claims 19 – 22 having been withdrawn from consideration. Upon entry of this Amendment, claims 1, 5, 8, and 13 – 15 will be amended, claims 2 – 4, 6, 7, and 9 – 12 will be canceled and new claims 24 – 28 will be added.

In addition, the Abstract of the Disclosure will be amended to conform the word count in the Abstract to the required range of between 50 and 150 words.

With regard to the claim for priority in this application, Applicant notes, in response to the Examiner's comments in this regard, that a Preliminary Amendment was submitted in this application on December 28, 2005 in which the specification of the application was amended to recite, on page 1, after the title, that the present application is the U.S. national phase of International Application No. PCT/IB2004/051062, filed June 30, 2004, which designated the U.S. and claimed priority to South African Application No. 2003/5146, filed July 2, 2003.

In the outstanding Office Action of July 3, 2008, the Examiner objects to claims 13 and 15 because of certain informalities in the language of such claims. Claims 13 and 15 have now been amended as suggested by the Examiner to overcome the Examiner's objection, which should now be withdrawn.

The Examiner is thanked for indicating in the outstanding Office Action that objected to claims 13 – 17 would also be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. Claim 13 has also been amended to include the limitations of independent claim 1 and dependent claim 2, from which it originally depended, to thereby place claim 13 in independent form. It is believed that such amendment to claim 13 places claims 13 – 17 in condition for allowance. Accordingly, no further word regarding claims 13 – 17 will be made in this Amendment.

The Examiner further rejected claims 1-4, 8-12 and 18 under 35 U.S.C. §102(b) as being anticipated by Meigs *et al.* (USP No. 889,321) (hereafter "Meigs") and claims 5-7 under 35 U.S.C. §103(a) as being unpatentable over Meigs. The Examiner's rejections are respectfully traversed.

For an invention to be anticipated by a reference, every element of the claim must be disclosed in the reference. Here, independent claim 1 has been amended to clarify the claimed ammunition loading assembly by reciting that drive means drives the urging member between a projectile receiving position outside the barrel and a projectile delivery position inside the chamber of the gun that is proximate to the commencement of engraving in the barrel at the proximate end of the barrel, so that the projectile urged by the urging member is delivered into the proximate end of the barrel and released by the urging member proximate to the engraving so that the projectile engraves on it's own momentum.

Meigs does not anticipate does not anticipate amended claim 1 since Meigs does not disclose an urging member for urging a projectile into a barrel of a gun and releasing the projectile proximate to the commencement of the engraving in the barrel at the proximate end of the barrel so that the projectile engraves on it's own momentum. Rather, Meigs is directed to providing a chain rammer for a gun that can occupy minimum space and therefore be desirable for use in turrets and other "contracted places" and that is of simplified construction so as to lessen its cost while also maintaining required strength and rigidity. In this regard, Meigs discloses a rammer that includes a rammer head, a main chain X and a guide chain Y which travels with the main chain and is lighter than the main chain and which prevents the main chain from flexing, to thereby sustain the rammer in a horizontal position. See, e.g., Meigs, col. 1, lns. 14-22 and col. 2, lns. 73-77.

The ammunition loading assembly of the present invention is a combination of a conventional flick rammer and the chain rammers of the prior art inventions. The ammunition loading assembly has the advantages of both the flick rammer and the chain rammer, but overcomes the disadvantages of both.

A conventional flick rammer for loading a projectile into a barrel of a gun flicks the projectile, from a position outside the chamber, through the inside of the chamber into the bore of the barrel. A first disadvantage of such flick rammer is that, to enable engraving of the projectile in the barrel, concentric alignment of the projectile and the barrel is required, which is not always accurately achieved owing to the distance the projectile is flicked. This is aggravated at high elevations of the barrel.

A second disadvantage of the flick rammer is that if the energy with which the projectile is flicked into the barrel is insufficient, fall-back of the projectile occurs. This is especially so if the elevation of the barrel is greater than 45 degrees and where the concentric alignment of the projectile and barrel moves out of kilter during movement of the projectile along the chamber, resulting in the sides of the projectile bouncing against the insides of the chamber, thus reducing the kinetic energy thereof.

Furthermore, should the energy with which the projectile is flicked into the barrel be too much, bounce-back of the projectile occurs. Moreover, with a conventional flick rammer, the energy applied to the projectile is relatively difficult to control and the engraving depth of projectile is therefore inconsistent.

In the case of conventional chain rammers, such as that disclosed in Meigs, a chain is used to push the projectile into and through the inside of the chamber and into the bore of the barrel, until the projectile comes to a halt within the bore, typically owing to the rifling (engraving) inside the bore. Thereafter, the chain retracts, while the projectile remains in position in the bore. A disadvantage of conventional chain rammers is that, since the projectile is forced into the bore so as to engage the rifling, a tremendous force can be exerted on the entire system. Repeatedly loading projectiles in this manner can, therefore, be detrimental to the gun and the ammunition loading assembly.

An important feature of the present invention is that the projectile is delivered and released just prior to the proximate end of the barrel where the rifling (engraving) starts. This renders the assembly relatively more reliable than conventional rammers, since

engraving of the projectile is more accurate and predictable at all elevations. In the present invention, the projectile is guided by the urging member into the chamber at a constant speed to a position just short of the commencement of rifling at the proximate end of the barrel. The projectile, therefore, engraves on the rifling on its own momentum. This engraving is more accurate than in the case of existing systems, since the projectile is guided and controlled all the way except for a very short distance just prior to engraving, where it is released to travel on its own momentum into the bore of the barrel where it engraves. The risk of misalignment and bounce-back is therefore reduced considerably, while still ensuring engraving.

In view of the foregoing, it is clear that Meigs does not anticipate amended independent claim of the present application or dependent claims 8 and 18, which depend from claim 1. Moreover, given the deficiency in the teachings of Meigs discussed above, it is also clear that claim 5, which also depends from claim 1, is not obvious over Meigs. Nor are new claims 24 – 28, which depend directly or indirectly from amended independent claim 1, anticipated by or obvious over Meigs.

In view of the foregoing, it is believed that all of the claims remaining in the application, *i.e.*, claims 1, 5, 8, 13 – 18 and 24 – 28, are now in condition for allowance,

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which action is earnestly solicited. If any issues remain in this application, the Examiner is urged to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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